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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,865	10/19/2001	Reiner Koppe	DE000137	4959

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

MCCALL, ERIC SCOTT

ART UNIT PAPER NUMBER

2855

DATE MAILED: 12/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,865

Applicant(s)

KOPPE ET AL.

Examiner

Eric S. McCall

Art Unit

2855

AW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

TOMOSYNTHESIS IN A LIMITED ANGULAR RANGE

FINAL OFFICE ACTION

In response to the Applicant's amendment (paper no. 7) dated Sep. 29, 2003.

ABSTRACT

The Applicant's amendment to the abstract has been noted, and the objection thereto as set forth in the previous office action (6/27/03) has been overcome.

SPECIFICATION

The Applicant's amendments to the specification have been noted, and the objections thereto as set forth in the previous office action (6/27/03) have been overcome.

The Applicant's substitute specification has been noted and entered into the record.

CLAIMS

Objections

The Applicant's amendments to the claims have been noted, and the objections thereto as set forth in the previous office action (6/27/03) have been overcome.

35 U.S.C. § 112

The Applicant's amendment to the claim 6 has been noted, and the rejection of claim 6 under 35 U.S.C. 112, second paragraph, as set forth in the previous office action (6/27/03) has been overcome.

35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 7, 8, 13, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by PCT Document WO 00/24314.

PCT document WO 00/24314, as cited by the Applicant as admitted prior art, discloses a method of forming an X-ray layer image of an object (11) with an X-ray device having an X-ray source (6) and an X-ray detector (5), comprising the steps of:

displacing the X-ray source and the X-ray detector in an angular range around the object in order to acquire X-ray projection images (page 4, lines 2-7); and

forming an X-ray layer image directly from the X-ray projection images (page 4, lines 10-15) without creating an intermediary three-dimensional data set (said document does not state that an intermediary three-dimensional data set is created), the formed X-ray layer image being situated in a plane (27) which extends essentially perpendicularly to a bisector of the angular range;

wherein, the angular range of displacement is less than 180 degrees (figs. 1 & 2 show a range of less than 180 degrees).

With regard to claims 2, 4, 7, 8, and 14, the Applicant's amendments thereof are deemed as being of grammatical nature only and do not effect the scope of the claims. Thus, the rejections thereof as set forth in said previous office action still apply.

With regards to claim 13, said claim is directed to the device for carrying out the method of parent claim 1, and thus, closely parallels that of claim 1. The Examiner directs the Applicant's attention to the above comments pertaining to claim 1, for the Examiner's

interpretation of the prior art's teaching of the claimed subject matter can be clearly seen therefrom.

35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5, 6, 9-12, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over by PCT Document WO 00/24314.

With regard to claims 3, 5, 6, and 9-12, the Applicant's amendments thereof are deemed as being of grammatical nature only and do not effect the scope of the claims. Thus, the rejections thereof as set forth in said previous office action still apply.

With respect to newly added claims 15 and 16, said claims are rejected for the same reasons as claims 5 and 6 as set forth in the previous office action.

Response to Arguments

The Applicant has argued that the present application does not require an intermediary three-dimensional data set to form the final tomographic image. In addition, the Applicant has argued that the prior art does not disclose the amount of projection images which must be taken in order to form a single tomographic image. Thus, the Applicant is implying that because the prior art is silent to such that the prior art does require an intermediary three-dimensional data set to form the final tomographic image.

In response, the Examiner points out that the applied prior art does not explicitly state or clearly suggest that an intermediary three-dimensional data set is required to form a final tomographic image. Thus, the Examiner contends that because the prior art does not state or clearly suggest that an intermediary three-dimensional data set is required that the prior art teaches that which is claimed by the Applicant.


Next, the Applicant has argued that in the present application the projection images are taken in an X-ray source angular range of less than 180 degrees. The Applicant goes on to state that prior art systems require the X-ray source to go through an angular range of at least 180 degrees implying that that the relied upon prior art also requires an angular range of at least 180 degrees. However, the Examiner points out that the angular range of the X-ray source (6) must be less than 180 degrees, as claimed, because the X-ray source would be out of communication with the X-ray detector (5) if the X-ray source even reached an angular range of 180 degrees.

CONCLUSION

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication should be directed to Eric S. McCall at telephone number (703) 308-6968.


Eric S. McCall
Primary Examiner
Art Unit 2855
Dec. 04, 2003